

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF OREGON
PORTLAND DIVISION

MENTOR GRAPHICS CORPORATION,
an Oregon corporation,

Plaintiff and Counter-Defendant,

v.

EVE-USA, INC., a Delaware corporation,
and **SYNOPSYS EMULATION AND
VERIFICATION S.A.,** formed under the
laws of France,

Defendants and Counter-Claimants.

No. 3:10-cv-00954-MO (Lead)
Case No. 3:12-cv-01500-MO
Case No. 3:13-cv-00579-MO

FINAL
JURY INSTRUCTIONS

FINAL JURY INSTRUCTIONS

DATED: This 9th day of October, 2014.

/s/Michael W. Mosman

MICHAEL W. MOSMAN
United States District Judge

Instruction No. 1

DUTY OF THE JURY

Members of the Jury: Now that you have heard all of the evidence and the arguments of the attorneys, it is my duty to instruct you as to the law of the case.

A copy of these instructions will be sent with you to the jury room when you deliberate.

You must not infer from these instructions or from anything I may say or do that I have an opinion regarding the evidence or what your verdict should be.

It is your duty to find the facts from all the evidence in the case. To those facts you will apply the law as I give it to you. You must follow the law as I give it to you whether you agree with it or not. And you must not be influenced by any personal likes or dislikes, opinions, prejudices, or sympathy. That means that you must decide the case solely on the evidence before you. You will recall that you took an oath to do so.

In following my instructions, you must follow all of them and not single out some and ignore others. They are all important.

Instruction No. 2

PREPONDERANCE OF THE EVIDENCE

When a party has the burden of proof on any claim or affirmative defense by a preponderance of the evidence, it means you must be persuaded by the evidence that the claim or affirmative defense is more probably true than not true.

You should base your decision on all of the evidence, regardless of which party presented it.

Instruction No. 3

WHAT IS EVIDENCE

The evidence you are to consider in deciding what the facts are consists of:

- (1) the sworn testimony of any witness;
- (2) the exhibits which are received into evidence; and
- (3) any facts to which the lawyers have agreed.

Instruction No. 4

WHAT IS NOT EVIDENCE

In reaching your verdict, you may consider only the testimony and exhibits received into evidence. Certain things are not evidence, and you may not consider them in deciding what the facts are. I will list them for you:

- (1) Arguments and statements by lawyers are not evidence. The lawyers are not witnesses. What they have said in their opening statements, closing arguments, and at other times is intended to help you interpret the evidence, but it is not evidence. If the facts as you remember them differ from the way the lawyers have stated them, your memory of them controls.
- (2) Questions and objections by lawyers are not evidence. Attorneys have a duty to their clients to object when they believe a question is improper under the rules of evidence. You should not be influenced by the objection or by the court's ruling on it.
- (3) Testimony that has been excluded or stricken, or that you have been instructed to disregard, is not evidence and must not be considered. In addition, sometimes testimony and exhibits are received only for a limited purpose. When I have given a limiting instruction, you must follow it.
- (4) Anything you may have seen or heard when the court was not in session is not evidence. You are to decide the case solely on the evidence received at the trial.

Instruction No. 5

DIRECT AND CIRCUMSTANTIAL EVIDENCE

Evidence may be direct or circumstantial. Direct evidence is direct proof of a fact, such as testimony by a witness about what that witness personally saw or heard or did. Circumstantial evidence is proof of one or more facts from which you could find another fact. You should consider both kinds of evidence. The law makes no distinction between the weight to be given to either direct or circumstantial evidence. It is for you to decide how much weight to give to any evidence.

Instruction No. 6

CREDIBILITY OF WITNESSES

In deciding the facts in this case, you may have to decide which testimony to believe and which testimony not to believe. You may believe everything a witness says, or part of it, or none of it. Proof of a fact does not necessarily depend on the number of witnesses who testify about it.

In considering the testimony of any witness, you may take into account:

- 1) the opportunity and ability of the witness to see or hear or know the things testified to;
- 2) the witness's memory;
- 3) the witness's manner while testifying;
- 4) the witness's interest in the outcome of the case and any bias or prejudice;
- 5) whether other evidence contradicted the witness's testimony;
- 6) the reasonableness of the witness's testimony in light of all the evidence; and
- 7) any other factors that bear on believability.

Instruction No. 7

EXPERT OPINION

You have heard testimony from persons who, because of education or experience, are permitted to state opinions and the reasons for their opinions.

Opinion testimony should be judged just like any other testimony. You may accept it or reject it, and give it as much weight as you think it deserves, considering the witness's education and experience, the reasons given for the opinion, and all the other evidence in the case.

Instruction No. 8

DEPOSITION TESTIMONY OF A 30(b)(6) DESIGNEE

Certain witnesses presented during this trial have been referred to by counsel as “30(b)(6) witnesses” or “30(b)(6) designees.” In litigation, a party may request the deposition of a corporation or other organization by serving the corporation or organization with a deposition notice or subpoena, describing with reasonable particularity the matters on which the corporation or organization will be examined. The corporation or organization must then designate one or more officers, directors, managing agents, or other persons to testify on its behalf. These persons are referred to as “30(b)(6) witnesses” or “30(b)(6) designees.” A 30(b)(6) witness must testify during his deposition about information known or reasonably available to the corporation or organization regarding the matters on which he was designated to testify.

The testimony of a 30(b)(6) witness regarding the matters on which he was designated to testify constitutes the testimony of the corporation or organization. You should give this testimony the same weight that you would give other testimony presented at trial. This testimony may be contradicted by other testimony or evidence presented at trial and you must decide which testimony or evidence is accurate.

Instruction No. 9

PRIVILEGED INFORMATION

A party does not need to disclose privileged information. Privileged information includes, for example, (1) confidential communications between a client and her attorney, and (2) work product created by an attorney in anticipation of litigation.

A party may not, however, rely on privileged information to show a good-faith belief in non-infringement or invalidity of a patent. If a party asserts that it relied on the advice or investigation of its attorneys (including attorneys within a corporation) to form its belief that a patent is invalid or not infringed, that party waives its privilege and must disclose its attorney's opinion, advice, investigation, and all other information relating to the subject of the investigation. In this case, Synopsys has claimed privilege and has not disclosed any attorney opinion, advice, or investigation of non-infringement or invalidity of the '376 Patent. Synopsys cannot, therefore, rely on such privileged information to support any non-infringement argument in this trial.

Instruction No. 10

SUMMARY OF CONTENTIONS

As I did at the start of the case, I will first give you a summary of each side's contentions in this case. I will then provide you with detailed instructions on what each side must prove to win on each of its contentions.

As I previously told you, Mentor Graphics contends that Synopsys infringes the '376 patent. The asserted claims of the '376 patent are: 1, 24, 26, 27, and 28. Mentor Graphics also argues that Synopsys has actively induced infringement of these claims of the '376 patent by others, and contributed to the infringement of these claims of the '376 patent by others. The emulation systems at issue are ZeBu-Server, ZeBu-Server 2, ZeBu-Server 3, and ZeBu-Blade. These products may be referred to collectively as the "accused products," the "accused emulation systems," or "Synopsys' emulation systems."

The validity and enforceability of the '376 patent is not at issue in this trial. For purposes of this trial, the '376 patent is valid and enforceable.

Synopsys denies that it has infringed the asserted claims of the '376 patent and denies that it has induced or contributed to any infringement of the '376 patent. Synopsys contends that its accused ZeBu emulation systems do not infringe the '376 patent because neither Synopsys nor its customers perform every step of claims 1, 24, 26, and 27 of the '376 patent and its accused ZeBu emulation systems do not meet all the elements of claim 28 of the '376 patent.

Your job is to decide whether Synopsys has infringed the asserted claims of the '376 patent. If you decide that any claim of the '376 patent has been infringed, you will then need to decide any money damages to be awarded to Mentor Graphics to compensate it for the infringement.

Instruction No. 11

THE PATENT AT ISSUE

I have already determined the meaning of certain claim terms of the '376 patent. You will be given a document reflecting those meanings. For a claim term for which I have not provided you with a definition, you should apply the ordinary meaning. You are to apply my definitions of these terms throughout this case. However, my interpretation of the language of the claims should not be taken as an indication that I have a view regarding issues such as infringement of the '376 patent. Those issues are yours to decide.

Instruction No. 12**THE ROLE OF THE CLAIMS OF A PATENT**

Before you can decide many of the issues in this case, you will need to understand the role of patent “claims.” The patent claims are the numbered sentences at the end of each patent. The claims are important because it is the words of the claims that define what a patent covers. The figures and text in the rest of the patent provide a description and/or example of the invention and provide a context for claims, but it is the claims that define the breadth of the patent’s coverage. Each claim is effectively treated as if it were a separate patent, and each claim may cover more or less than another claim. Therefore, what a patent covers depends, in turn, on what each of its claims covers.

You will first need to understand what each claim covers in order to decide whether or not there is infringement of the claim. The law says that it is my role to define the terms of the claims. You will be given a document that includes my definitions. You must accept my definitions of these words in the claims as being correct. It is your job to take these definitions and apply them as you consider whether Synopsys infringes the asserted patent claims.

I instruct you that the following claim terms have the following definition, all of which are also included in the document you will be given:

Claim Term	Construction
gate-level netlist	“a list of gates and their inputs, outputs, and interconnects”
gate-level design	“a list of gates and their inputs, outputs, and interconnects”
instrumentation signal	“output signal added or preserved during logic synthesis that indicates whether a corresponding RTL source code statement is active”
simulating a gate-level design	“modeling the operation of a gate level design using software and/or hardware”
sensitivity list	“a list of signals to which a process is responsive”
process	“a description of the behavior of some portion of a circuit design”
generating logic	“generating gates”

If I have not provided a specific definition for a given term, you are to use the ordinary meaning of that term.

Instruction No. 13

HOW A CLAIM DEFINES WHAT IT COVERS

I will now explain how a claim defines what it covers.

A claim sets forth, in words, a set of requirements. Each claim sets forth its requirements in a single sentence. If a device or a method satisfies each of these requirements, then it is covered by the claim.

There can be several claims in a patent. Each claim may be narrower or broader than another claim by setting forth more or fewer requirements. The coverage of a patent is assessed claim-by-claim. In patent law, the requirements of a claim are often referred to as “claim elements” or “claim limitations.” When a product meets all of the requirements of a claim, the claim is said to “cover” that thing, and that thing is said to “fall” within the scope of that claim. In other words, a claim covers a product or process where each of the claim elements or limitations is present in that product or process.

Sometimes the words in a patent claim are difficult to understand, and therefore it is difficult to understand what requirements these words impose. It is my job to explain to you the meaning of the words in the claims and the requirements these words impose. As I just instructed you, there are certain specific terms that I have defined and you are to apply the definitions that I provide to you.

By understanding the meaning of the words in a claim and by understanding that the words in a claim set forth the requirements that a product or process must meet in order to be covered by that claim, you will be able to understand the scope of coverage for each claim. Once you understand what each claim covers, then you are prepared to decide whether Mentor has proven that Synopsys infringes the asserted claims of the '376 patent.

Instruction No. 14

INDEPENDENT AND DEPENDENT CLAIMS

This case involves two types of patent claims: independent claims and dependent claims.

An “independent claim” sets forth all of the requirements that must be met in order to be covered by that claim. Thus, it is not necessary to look at any other claim to determine what an independent claim covers. In this case, claims 1, 24, and 28 of the ’376 patent are each independent claims.

Claims 26 and 27 of the ’376 patent are “dependent claims.” A dependent claim does not itself recite all of the requirements of the claim but refers to another claim for some of its requirements. In this way, the claim “depends” on another claim. A dependent claim incorporates all of the requirements of the claim to which it refers. The dependent claim then adds its own additional requirements. To determine what a dependent claim covers, it is necessary to look at both the dependent claim and any other claim to which it refers. A product or method that meets all of the requirements of both the dependent claim and the claims to which it refers is covered by that dependent claim and the independent claim.

Instruction No. 15

INFRINGEMENT GENERALLY

I will now instruct you how to decide whether or not Synopsys has infringed the '376 patent. Infringement is assessed on a claim-by-claim basis. Therefore, there may be infringement as to one claim but no infringement as to another.

In this case, there are three possible ways that a claim may be infringed. The three types of infringement are called: (1) direct infringement; (2) active inducement; and (3) contributory infringement. Active inducement and contributory infringement are referred to as indirect infringement. There cannot be indirect infringement without someone else engaging in direct infringement. To prove indirect infringement, Mentor Graphics must also prove that Synopsys' indirect infringement caused direct infringement. In this case, Mentor Graphics has alleged that Synopsys directly infringes the '376 patent. In addition, Mentor Graphics has alleged that Synopsys' customers directly infringe the '376 patent, and Synopsys is liable for actively inducing or contributing to that direct infringement by Synopsys' customers.

In order to prove infringement, Mentor Graphics must prove that the requirements for one or more of these types of infringement are met by a preponderance of the evidence, i.e., that it is more likely than not that all of the requirements of one or more of each of these types of infringement have been proved.

I will now explain each of these types of infringement in more detail.

Instruction No. 16

DIRECT INFRINGEMENT

In order to prove direct infringement of method claims 1, 24, 26, and 27, Mentor Graphics must prove by a preponderance of the evidence, i.e., that it is more likely than not, that Synopsys performed every step of the asserted claim and did so without the permission of Mentor Graphics after October 4, 2012.

In order to prove direct infringement of claim 28, Mentor Graphics must prove by a preponderance of the evidence, i.e., that it is more likely than not, that Synopsys made, used, sold, offered for sale within, or imported into the United States a product that meets all the limitations of claim 28.

The asserted patent claims use the term “comprising,” meaning that they are “open claims.” An open claim is infringed if every limitation of the claim is met, regardless of whether additional features are present in the infringing method or apparatus. For example, in an open method claim that recites steps 1, 2, and 3, a method that includes steps 1, 2, 3, and additional step 4 infringes. And in an open apparatus claim that recites elements A, B, and C, an apparatus incorporating elements A, B, C, and additional feature D infringes. It is, thus, irrelevant to the infringement analysis whether the ZeBu emulation systems perform additional steps or contain additional elements beyond those recited in the asserted patent claims.

Mentor Graphics must prove by a preponderance of the evidence that the use or sale of ZeBu emulation systems using flexible probes or value change probes meets every element of an asserted claim.

You must determine, separately for each asserted claim, whether or not there is infringement. There is one exception to this rule. If you find that a claim on which other claims depend is not infringed, there cannot be infringement of any dependent claim that refers directly or indirectly to that independent claim. On the other hand, if you find that an independent claim has been infringed, you must still decide, separately, whether the additional requirements of any claims that depend from the independent claim are met, thus, whether those claims have also been infringed.

Instruction No. 17

INDIRECT INFRINGEMENT—ACTIVE INDUCEMENT

Mentor Graphics alleges that Synopsys is liable for infringement by actively inducing its customers to directly infringe the '376 patent. As with direct infringement, you must determine whether there has been active inducement on a claim-by-claim basis.

Synopsys is liable for active inducement of a claim only if Mentor Graphics proves by a preponderance of the evidence that the following occurred after October 4, 2012:

- 1) a Synopsys customer carried out acts that directly infringe an asserted claim of the '376 patent;
- 2) Synopsys took action specifically intending to cause a customer to carry out the infringing acts;
- 3) Synopsys was aware of the '376 patent; and
- 4) Synopsys knew that the acts, if taken, would constitute infringement of the '376 patent, or believed there was a high probability that the acts, if taken, would constitute infringement of the '376 patent, but deliberately avoided confirming that belief.

In order to establish inducement of infringement, it is not sufficient that Synopsys' customers directly infringe the claim. Nor is it sufficient that Synopsys was aware of the act(s) by its customers that allegedly constitute direct infringement. Rather, in order to find inducement of infringement, you must find that Synopsys specifically intended its customers to infringe the '376 patent or that Synopsys believed there was a high probability that its customers would infringe the '376 patent, but deliberately avoided learning the infringing nature of its customers' acts.

Instruction No. 18

Indirect Infringement—Contributory Infringement

You must determine whether Synopsys is liable for contributory infringement by contributing to the direct infringement of the '376 patent by its customers. As with direct infringement, you must determine contributory infringement on a claim-by-claim basis. Synopsys is liable for contributory infringement of a claim if Mentor Graphics proves by a preponderance of the evidence, i.e., that it is more likely than not that each of the following requirements is met and that each occurred after October 4, 2012:

- 1) direct infringement of the '376 patent by a Synopsys customer;
- 2) Synopsys sells, offers to sell, or imports within the United States a component of an emulation system that is used to practice and asserted claim of the '376 patent;
- 3) the component constitutes a material part of the claimed invention;
- 4) the component has no substantial, non-infringing use; and
- 5) Synopsys is aware of the '376 patent and knows that there is no substantial, non-infringing use for the component.

The component may be a hardware component or a software feature.

Mentor Graphics does not need to prove that the entire emulation system has no non-infringing uses—only that the hardware component or software feature is not a common component suitable for non-infringing use. Synopsys may not escape liability as a contributory infringer merely by embedding the component in a larger product with other additional, non-infringing features.

Instruction No. 19

DAMAGES—GENERALLY

If you find that Synopsys infringed any asserted claim of the '376 patent, you must then consider what amount of damages to award to Mentor Graphics. I will now instruct you about the measure of damages. By instructing you on damages, I am not suggesting which party should win this case.

The damages you award must be adequate to compensate Mentor Graphics for the infringement. They are not meant to punish Synopsys. While Mentor Graphics is not required to prove its damages with mathematical precision, it must prove them with reasonable certainty. Mentor Graphics has the burden to persuade you of the amount of its damages by a preponderance of the evidence. Your damages award should put Mentor Graphics in approximately the same financial position that it would have been in had the infringement not occurred. You should not award damages that are remote or speculative.

There are different types of damages that Mentor Graphics may be entitled to recover. In this case, Mentor Graphics seeks lost profits and a reasonable royalty. Lost profits consist of any actual reduction in business profits Mentor Graphics suffered as a result of Synopsys' infringement. A reasonable royalty is defined as the money amount Mentor Graphics and Synopsys would have agreed upon as a fee for use of the invention before infringement began.

I will give more detailed instructions regarding damages shortly. Note, however, that Mentor Graphics is entitled to at least a reasonable royalty for each sale of an infringing emulation system.

Instruction No. 20

LOST PROFITS—“BUT FOR” TEST

In this case, Mentor Graphics seeks to recover lost profits for some of Synopsys’ sales of Synopsys’ emulation systems and a reasonable royalty on the rest of Synopsys’ sales.

To recover lost profits (as opposed to reasonable royalties), Mentor Graphics must show a causal relationship between the infringement and Mentor Graphics’ loss of profit. In other words, Mentor Graphics must show that, but for the infringement by Synopsys, there is a reasonable probability that Mentor Graphics would have earned higher profits. To show this, Mentor Graphics must prove that, if there had been no infringement, it would have made some portion of the sales that Synopsys made of the infringing product.

Synopsys’ Sales to Intel

Mentor Graphics is entitled to recover lost profits on Synopsys’ sales to Intel of its ZeBu emulation systems on its “two-supplier market” theory if it establishes each of the following:

- 1) That there were only two acceptable, available alternatives in the Intel market during the damages period: Mentor Graphics’ emulation system and Synopsys’ allegedly infringing emulation system.
- 2) That Mentor Graphics had the manufacturing and marketing capacity to make any infringing sales actually made by Synopsys and for which Mentor Graphics seeks an award of lost profits—in other words, that Mentor Graphics was capable of satisfying the demand. (See Instruction No. 23.)
- 3) The amount of profit that Mentor Graphics would have made if Synopsys had not infringed. (See Instruction No. 24.)

If Mentor Graphics meets all of the above requirements, the burden shifts to Synopsys to show that Mentor Graphics would not have made some or all of the diverted sales “but for” the infringement. Synopsys may do so by showing, for example, any of the following:

- 1) That the Cadence emulation system was an acceptable, available, non-infringing alternative to Mentor Graphics’ emulation system and Synopsys’ infringing emulation system at Intel. (See Instruction No. 22)
- 2) That an FPGA prototype was an acceptable, available, non-infringing alternative to Mentor Graphics’ emulation system and Synopsys’ infringing emulation system at Intel.
- 3) That a software simulator was an acceptable, available, non-infringing alternative to Mentor Graphics’ emulation system and Synopsys’ infringing emulation system at Intel.
- 4) That Synopsys could have made available during the damages period an acceptable, non-infringing alternative to Mentor Graphics’ emulation system and Synopsys’ infringing emulation system.

Instruction No. 20

- 5) That Intel would have bought fewer or no emulation systems in place of those it bought from Synopsys.

If Synopsys is able to show any of the above, you may reduce the amount of lost profits awarded to Mentor Graphics accordingly. For example, if you determine that, without the ZeBu emulation system in the market, Intel would have bought some Cadence emulation systems, instead of buying only Mentor Graphics emulation systems, you should only award Mentor Graphics lost profits for the sales made by Synopsys that you believe Mentor Graphics would actually have made to Intel. Or if you determine that, without the ZeBu emulation system in the market, Intel would have bought fewer or no Mentor Graphics emulation systems, you should only award Mentor Graphics lost profits for the sales made by Synopsys that you believe Mentor Graphics would actually have made to Intel.

Synopsys' Sales to Non-Intel Customers

Mentor Graphics is entitled to recover lost profits on Synopsys' sales to non-Intel customers of its ZeBu emulation systems if it establishes each of the following:

- 1) That there was a demand for the patented product. (See Instruction No. 21.)
- 2) Mentor Graphics' share of the non-Intel market. (See Instructions No. 25.)
- 3) That Mentor Graphics had the manufacturing and marketing capacity to make any infringing sales actually made by Synopsys and for which Mentor Graphics seeks an award of lost profits—in other words, that Mentor Graphics was capable of satisfying the demand. (See Instruction No. 23.)
- 4) The amount of profit that Mentor Graphics would have made if Synopsys had not infringed. (See Instruction No. 24.)

If Mentor Graphics meets all of the above requirements, the burden shifts to Synopsys to show that Mentor Graphics reasonably would not have made some or all of the diverted sales “but for” the infringement. Synopsys may do so by showing, for example, any of the following:

- 1) That Synopsys could have made available during the damages period an acceptable, non-infringing alternative to Mentor Graphics' emulation system and Synopsys' infringing emulation system.
- 2) That non-Intel customers would have bought fewer or no emulation systems in place of those it bought from Synopsys.

If Synopsys is able to show any of the above, you may reduce the amount of lost profits awarded to Mentor Graphics accordingly. For example, if you determine that, without the ZeBu emulation system in the market, non-Intel customers would have bought fewer or no Mentor Graphics emulation systems, you should only award Mentor Graphics lost profits for the sales made by Synopsys that you believe Mentor Graphics would actually have made to non-Intel customers.

Instruction No. 21

LOST PROFITS—DEMAND

With respect to the proving lost profits, demand for the patented product can be proven by:

- 1) significant sales of the patented product by Mentor Graphics, or
- 2) significant sales of an infringing Synopsys emulation system.

Instruction No. 22

LOST PROFITS—NON-INFRINGEMENT SUBSTITUTES—ACCEPTABILITY

To be an “acceptable substitute,” a product must have the advantages of the patented invention that were important to Intel. If Intel was motivated to buy Synopsys’ infringing emulation system because of features and characteristics available only from Synopsys’ infringing emulation system and Mentor Graphics’ emulation system, then some other, alternative product that lacks the accused features is not an acceptable substitute, even if it otherwise competed with Synopsys’ infringing emulation system and Mentor Graphics’ emulation system. On the other hand, if the realities of the marketplace are that competitors other than Mentor Graphics would likely have captured the sales made by Synopsys, despite a difference in the products, then Mentor Graphics is not entitled to lost profits on those sales.

An alternative product may be considered “available” as a potential substitute even if the product was not actually on sale during the infringement period. Factors suggesting the alternative was available include whether the material, experience, and know-how for the alleged substitute were readily available at the time of infringement. Factors suggesting the alternative was not available include whether the material was of such high cost as to render the alternative unavailable and whether Synopsys had to design or invent around the patented technology to develop an alleged substitute.

Instruction No. 23

LOST PROFITS—CAPACITY

With respect to the third requirement for lost profits, a patent holder is only entitled to lost profits for sales it could have made. In other words, Mentor Graphics must show that it had the manufacturing and marketing capability to make the sales it said it lost: Mentor Graphics must show it is more probable than not that it could have made and sold, or could have had someone else make or sell for it, the additional products it says it could have sold but for the infringement.

Instruction No. 24

LOST PROFITS—AMOUNT OF PROFIT

With respect to the last requirement for lost profits, Mentor Graphics may calculate its lost profits on lost sales by computing the lost revenue for sales it has proven it would have made but for the infringement and subtracting from that figure the amount of additional costs or expenses it would have incurred in making those lost sales, such as cost of goods, sales costs, packaging costs, and shipping costs. Certain fixed costs that do not vary with increases in production or scale, such as taxes, insurance, rent, and administrative overhead, should not be subtracted from a patent holder's lost revenue.

Instruction No. 25

NON-INTEL LOST PROFITS—MARKET SHARE

If Mentor Graphics establishes it would have made some, but not all, of Synopsys' sales but for the infringement, the amount of sales that Mentor Graphics lost may be shown by proving Mentor Graphics' share of the relevant market, excluding infringing products. Mentor Graphics may be awarded a share of profits equal to its market share even if there were non-infringing substitutes available. In determining Mentor Graphics' market share, the market must be established first, which requires determining which products are in that market. Products are considered in the same market if they are considered "sufficiently similar" to compete against each other. Two products may be sufficiently similar if they do not have significantly different prices or characteristics.

Instruction No. 26

LOST PROFITS—COLLATERAL SALES

In this case, Mentor Graphics is seeking lost profits from sales of service agreements, which Mentor Graphics contends it would have sold along with its emulation system that competes with Synopsys' emulation systems. These service agreements sold with Mentor Graphics' emulation systems are called collateral products.

To recover lost profits on sales of such collateral products, Mentor Graphics must establish it is more likely than not that Mentor Graphics would have sold the collateral products (the service agreements) but for the infringement.

Recovery for lost profits on sales of collateral products must not include items that essentially have no functional relationship to the competitive product and that have been sold with the competitive product only as a matter of convenience or business advantage. You may not award patent damages for sales of items or services that are neither competitive with nor function with the patented invention.

Instruction No. 27

REASONABLE ROYALTY—GENERALLY

If you find that Mentor Graphics has established infringement of the Mentor Graphic patent, Mentor Graphics is entitled to at least a reasonable royalty to compensate it for that infringement. If you find that Mentor Graphics has not proved its claim for lost profits, or has proved its claim for lost profits for only a portion of the infringing sales, then you must award Mentor Graphics a reasonable royalty for all infringing sales for which you have not awarded lost profits damages.

Instruction No. 28

REASONABLE ROYALTY—DEFINITION

A royalty is a payment made to a patent holder in exchange for the right to make, use, or sell the claimed invention. A reasonable royalty is the amount of royalty payment that a patent holder and the infringer would have agreed to in a hypothetical negotiation taking place at a time prior to when the infringement first began. In considering this hypothetical negotiation, you should focus on what Mentor Graphics' and Synopsys' expectations would have been had they entered into an agreement when infringement first began, and had they acted reasonably in their negotiations. In determining this, you must assume that both parties believed the patent was infringed and that Mentor Graphics and Synopsys were willing to enter into an agreement. The reasonable royalty you determine must be a royalty that would have resulted from the hypothetical negotiation, and not simply a royalty either party would have preferred. Evidence of things that happened after the infringement first began can be considered in evaluating the reasonable royalty only to the extent that the evidence aids in assessing what royalty would have resulted from a hypothetical negotiation. Although evidence of the actual profits Synopsys made may be used to determine the anticipated profits at the time of the hypothetical negotiation, the royalty may not be limited or increased based on the actual profits that Synopsys made.

Instruction No. 29

REASONABLE ROYALTY—RELEVANT FACTORS

In determining the reasonable royalty, you should consider all the facts known and available to the parties at the time the infringement began. Some of the kinds of factors that you may consider in making your determination are:

- 1) The royalties received by Mentor Graphics for the licensing of the '376 patent, proving or tending to prove an established royalty.
- 2) The rates paid by Synopsys for the use of other patents comparable to the '376 patent.
- 3) The nature and scope of the license, as exclusive or nonexclusive, or as restricted or nonrestricted in terms of territory or with respect to whom the manufactured product may be sold.
- 4) Mentor Graphics' established policy and marketing program to maintain its patent monopoly by not licensing others to use the invention or by granting licenses under special conditions designed to preserve that monopoly.
- 5) The commercial relationship between Mentor Graphics and Synopsys, such as whether they are competitors in the same territory in the same line of business, or whether they are inventor and promoter.
- 6) The effect of selling the patented feature in promoting sales of other Synopsys products, the existing value of the invention to Mentor Graphics as a generator of sales of its nonpatented items, and the extent of such derivative or collateral sales.
- 7) The duration of the '376 patent and the term of the license.
- 8) The established profitability of Synopsys' and Mentor Graphics' products covered by the '376 patent, their commercial success, and current popularity.
- 9) The utility and advantages of the patented feature over the old modes or devices, if any, that had been used for working out similar results.
- 10) The nature of the patented invention, the character of the commercial embodiment of it as owned and produced by the licensor, and the benefits to those who have used the invention.
- 11) The extent to which Synopsys has made use of Mentor Graphics' invention and any evidence probative of the value of that use.
- 12) The portion of the profit or of the selling price that may be customary in the particular business or in comparable business to allow for the use of the invention or analogous inventions.

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- 13) The portion of the realizable profits that should be credited to Mentor Graphics' patented features as distinguished from nonpatented features, the manufacturing process, business risks, or significant features or improvements added by Synopsys.
- 14) The opinion and testimony of qualified experts.
- 15) The amount that a licensor, such as Mentor Graphics, and a licensee, such as the Synopsys, would have agreed upon at the time the infringement began if both had been reasonably and voluntarily trying to reach an agreement; that is, the amount which a prudent licensee—who desired, as a business proposition, to obtain a license to manufacture and sell a particular article embodying the patented invention—would have been willing to pay as a royalty and yet be able to make a reasonable profit and which amount would have been acceptable by a prudent patentee who was willing to grant a license.

No one factor is dispositive and you can and should consider the evidence that has been presented to you in this case on each of these factors. You may also consider any other factors which in your mind would have increased or decreased the royalty Synopsys would have been willing to pay and Mentor Graphics would have been willing to accept, acting as normally prudent business people. The final factor establishes the framework which you should use in determining a reasonable royalty, that is, the payment that would have resulted from a negotiation between Mentor Graphics and Synopsys taking before Synopsys' alleged infringement began.

Instruction No. 30

DATE OF COMMENCEMENT OF DAMAGES—PRODUCTS

In determining the amount of Mentor Graphics' damages, you should assume that damages begin on October 4, 2012.

Instruction No. 31

USE OF NOTES

Some of you have taken notes during the trial. Whether or not you took notes, you should rely on your own memory of what was said. Notes are only to assist your memory. You should not be overly influenced by your notes or those of your fellow jurors.

Instruction No. 32

COMMUNICATION WITH COURT

If it becomes necessary during your deliberations to communicate with me, you may send a note through the clerk signed by your presiding juror or by one or more members of the jury. No member of the jury should ever attempt to communicate with me except by a signed writing. I will communicate with any member of the jury on anything concerning the case only in writing, or here in open court. If you send out a question, I will consult with the parties before answering it, which may take some time. You may continue your deliberations while waiting for the answer to any question. Remember that you are not to tell anyone—including me—how the jury stands, numerically or otherwise, until after you have reached a unanimous verdict or have been discharged. Do not disclose any vote count in any note to the court.

Instruction No. 33

RETURN OF VERDICT

A verdict form has been prepared for you. After you have reached unanimous agreement on a verdict, your presiding juror will fill in the form that has been given to you, sign and date it, and advise the court that you are ready to return to the courtroom.

Instruction No. 34

GLOSSARY

Some of the terms in this glossary will be defined in more detail in the legal instructions you are given. The definitions in the instructions must be followed and must control your deliberations.

Abstract: A brief summary of the technical disclosure in a patent to enable the U.S. Patent and Trademark Office and the public to determine quickly the nature and gist of the technical disclosure in the patent.

Amendment: A patent applicant's change to one or more claims or to the specification either in response to an office action taken by an Examiner or independently by the patent applicant during the patent application examination process.

Assignment: A transfer of patent rights to another called an "assignee" who, upon transfer, becomes the owner of the rights assigned.

Claim: Each claim of a patent is a concise, formal definition of an invention and appears at the end of the specification in a separately numbered paragraph. In concept, a patent claim marks the boundaries of the patent in the same way that a legal description in a deed specifies the boundaries of land, i.e., similar to a landowner who can prevent others from trespassing on the bounded property, the inventor can prevent others from using what is claimed. Claims may be independent or dependent. An independent claim stands alone. A dependent claim does not stand alone and refers to one or more other claims. A dependent claim incorporates whatever the other referenced claim or claims say.

Drawings: The drawings are visual representations of the claimed invention contained in a patent application and issued patent, and usually include several figures illustrating various aspects of the claimed invention.

Elements: The required parts of a device or the required steps of a method. A device or method infringes a patent if it contains each and every requirement of a patent claim.

Embodiment: A product or method that contains the claimed invention.

Examination: Procedure before the U.S. Patent and Trademark Office whereby an Examiner reviews the filed patent application to determine if the claimed invention is patentable.

Infringement: Violation of a patent occurring when someone makes, uses, or sells a patented invention, without permission of the patent holder, within the United States during the term of the patent. Infringement may be direct, by inducement, or contributory. Direct infringement is making, using, or selling the patented invention without permission. Inducing infringement is intentionally causing another to directly infringe a patent. Contributory infringement is offering to sell or selling an item that is a significant part of the invention, so that the buyer directly infringes the patent. To be a contributory infringer, one must know that the part being offered or sold is designed specifically for infringing the patented invention and is not a common object suitable for non-infringing uses.

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Limitation: A required part of an invention set forth in a patent claim. A limitation is a requirement of the invention. The word “limitation” is often used interchangeably with the word “requirement.”

Patent: A patent is an exclusive right granted by the U.S. Patent and Trademark Office to an inventor to prevent others from making, using, or selling an invention for a term of 20 years from the date the patent application was filed (or 17 years from the date the patent issued). When the patent expires, the right to make, use, or sell the invention is dedicated to the public. The patent has three parts, which are a specification, drawings and claims. The patent is granted after examination by the U.S. Patent and Trademark Office of a patent application filed by the inventor which has these parts, and this examination is called the prosecution history.

Patent and Trademark Office (PTO): An administrative branch of the U.S. Department of Commerce that is charged with overseeing and implementing the federal laws of patents and trademarks. It is responsible for examining all patent applications and issuing all patents in the United States.

Prior Art: Previously known subject matter in the field of a claimed invention for which a patent is being sought. It includes issued patents, publications, and knowledge deemed to be publicly available, such as trade skills, trade practices, and the like.

Prosecution History: The prosecution history is the complete written record of the proceedings in the PTO from the initial application to the issued patent. The prosecution history includes the office actions taken by the PTO and the amendments to the patent application filed by the applicant during the examination process.

Reads On: A patent claim “reads on” a device or method when each required part (requirement) of the claim is found in the device or method.

Requirement: A required part or step of an invention set forth in a patent claim. The word “requirement” is often used interchangeably with the word “limitation.”

Royalty: A royalty is a payment made to the owner of a patent by a nonowner in exchange for rights to make, use, or sell the claimed invention.

Specification: The specification is a required part of a patent application and an issued patent. It is a written description of the invention and of the manner and process of making and using the claimed invention.